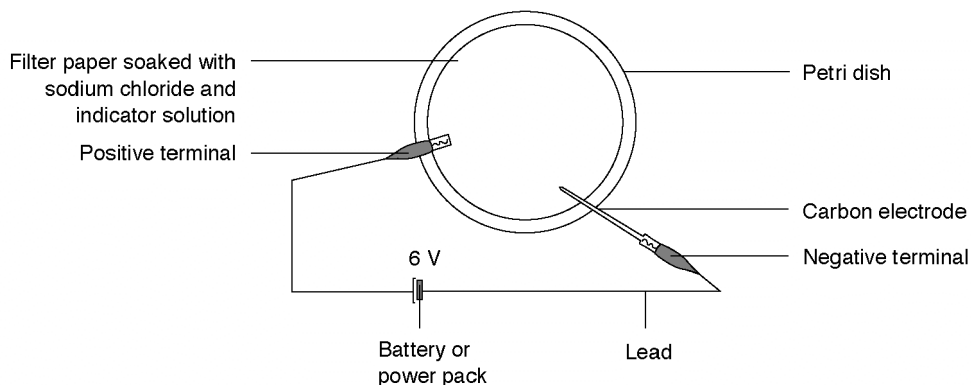


IGCSE chemistry section 1i

CHEMISTRY AND ELECTRICITY

Introduction

In this experiment, electricity and some indicators are used to make coloured writing.



What to do

1. Dissolve a spatula measure of sodium chloride in 2 cm³ of water. Add three drops of methyl orange indicator.
2. Lay a filter paper inside a plastic petri dish. Drop the solution onto the paper using a dropping pipette, until the paper holds no more solution.
3. Attach the positive end of a 6 V battery to a lead ending in a crocodile clip. Use the crocodile clip to grip one end of the paper.
4. Attach the negative end of the battery to a carbon electrode.
5. Write lightly on the wet paper, using the carbon electrode. What colour is the writing?
6. Repeat the experiment using Universal Indicator. Describe what happens.

Safety

Wear eye protection.

Questions

1. What would happen if the lead were attached to the positive electrode using Universal Indicator? Try this if there is time.
2. Explain what reactions have occurred to produce the colours.